

Work Order ID 78018 -2

December-28-11 1:28:36 PM

78018

Page 1

Item ID: D2646

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Alt Cap

Start Date: 23/12/2011 Start Qty: 50.00

50

Cust Item ID:

Required Date: 01/02/2012 Req'd Qty: 50.00

50

Customer:

Reference:

Approvals: Process Plan: M L J

Date: 11/12/2011 Tooling:

Date:

Run Start *NR1*

QC:

Date: SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID Tool # Plan Accept Reject Reject Insp.
Code Qty Qty Number Stamp

Draw Nbr

Revision Nbr

D2646

Rev C

100

0.00

100

Purchasing

PURCHASING

Memo

0.00

Purchasing

Issue P/O 15753 1-Spin as per Dwg D2646 2-Material release note required

110

Receive & Inspect for Damage & Mat'l Certs

0.00

110

Packaging

Memo

0.00

Packaging

Ensure Material Release Note is attached

120

QC6- Inspect dimensions to drawing

0.00

120

QC

Memo

0.00

Quality Control

SPUT Blue sky Feb. 20

11-12-29

11/12/20

ccent
(XO)
Isper

8/17/26

Work Order ID 78018

December-28-11 1:28:36 PM

78018

Page 2

Item ID: D2646

Revision ID:

Item Name: Alt Cap

Start Date: 23/12/2011 Start Qty: 50.00

Required Date: 01/02/2012 Req'd Qty: 50.00

Reference:

Accept

N900040100Setup Start ***NS1***Stop ***NS2***

Cust Item ID:

Customer:

Approvals: Process Plan:

QC:

Date:

Date:

Tooling:

SPC (Y/N):

Date:

Date:

Run Start ***NR1***Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

130

Small Fab

Small Fab

Small Fab

Memo

1-Drill using DT8026 as per Dwg D2646.2-Open holes to .297 as per Dwg
D2646.3-Deburr

0.00

0.00

S

20

FF

12-02-02

140

140

QC

Quality Control

QC5- Inspect part completeness to step on W/O

Memo

0.00

0.00

5.12102/02

Cautn
x20

150

150

HandFinish

Hand Finishing

Chemical Conversion Coat per QSI005 4.1

Memo

0.00

0.00

20 12-02-02

Work Order ID 78018

December-28-11 1:28:36 PM

78018

Page 3

Item ID: D2646

Revision ID:

Item Name: Aft Cap

Start Date: 23/12/2011 Start Qty: 50.00

Required Date: 01/02/2012 Req'd Qty: 50.00

Reference:

Accept

N9000040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

160

Powdercoat

Powder Coating

White Gloss Ref (4.3.5.1) per QSI005 4.3-Alum

0.00

0.00

OVEN TEMPERATURE:

Memo

START TIME

FINISH TIME

Frame B 117319
DelSlat Blue B 118395
clear DelSlat B 118093

Pho →
Last Page

At 12-2-11

170

170

QC

Quality Control

QC Inspect Part Finish

0.00

Memo

0.00

12.02.13

20

180

180

Small Fab

Small Fab

Small Fab

Memo

Install inserts as per Dwg D2646

0.00

0.00

20x
count d M/12/02/14

Dart Aerospace Ltd

W/O: 78018-2 ~~4~~

WORK ORDER CHANGES

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D2646 PAR #: Fault Category: Finishing / wet Paint NCR: Yes No DQA: ~~Not~~ Date: 12/2/17
 Resolution: Re work Disposition: Re work QA: N/C Closed: ~~OK~~ Date: 12/2/17

12-1209
NCR:

WORK ORDER NON-CONFORMANCE (NCR)

DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
12-2-11	161	Paint has too many flaws in it P.C. Painters have to paint rooming parts at the same time	S 12/2/09 AST042	Scuff until dry x20 Re paint as per AST042 in small batches	AS 12-2-9	S 12/2/13	S 12/2/09 AST042	S 12/2/09

NOTE: Date & initial all entries

Work Order ID 78018

December-28-11 1:28:36 PM

78018

Page 4

Item ID: D2646

Revision ID:

Item Name: Alt Cap

Start Date: 23/12/2011 Start Qty: 50.00

Required Date: 01/02/2012 Req'd Qty: 50.00

Reference:

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Approvals: Process Plan:

QC:

Date:

Date:

Tooling:

SPC (Y/N):

Date:

Date:

Run Start *NR1*

Stop *NR2*

Sequence ID/
Work Center ID

190

190

QC

Quality Control

Operation
Description

QC5- Inspect part completeness to step on W/O

Memo

Set Up/
Run Hours

0.00

0.00

5/16/14

Tool ID Tool # Plan Code Accept Qty Reject Qty Reject Number Insp. Stamp

780

200

200

Packaging

Packaging

Identify as per dwg & Stock Location: FP-2

Memo

0.00

0.00

x20 of all 12/02/14
100 NT

210

210

QC

Quality Control

QC21- Final Inspection - Work Order Release

Memo

0.00

0.00

M.C.J 12/02/14

M.C.J 12/02/14
20

Picklist Print

December-28-11 1:28:40 PM

Page 1

Work Order ID: 78018

78018

Parent Item: D2646

D2646

Parent Item Name: Aft Cap

Start Date: 23/12/2011

Required Date: 01/02/2012

Start Qty: 50.00

Required Qty: 50.00

Comments: IPP: G05.08.22Hole size revised in Step 5KJ/JLM
IPP Rev:H Changed Inserts 07-02-19 JLM
IPP rev: I changed inserts 07.06.11 EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
ALS7-1032-130		Purchased	No			110	Each	731.0000	2	100	40	11/02/14	

AI S7-1032-130

Insert

ALS4-1032-130

**

M119084 x

Location

Loc Qty

Loc Code

ST280

328

117717

27

118966

22

119775

279

ST281

221

119794

221

ST282

182

119530

182

D2646P

Purchased

No

180

Each

0.0000

1

50

D2646P

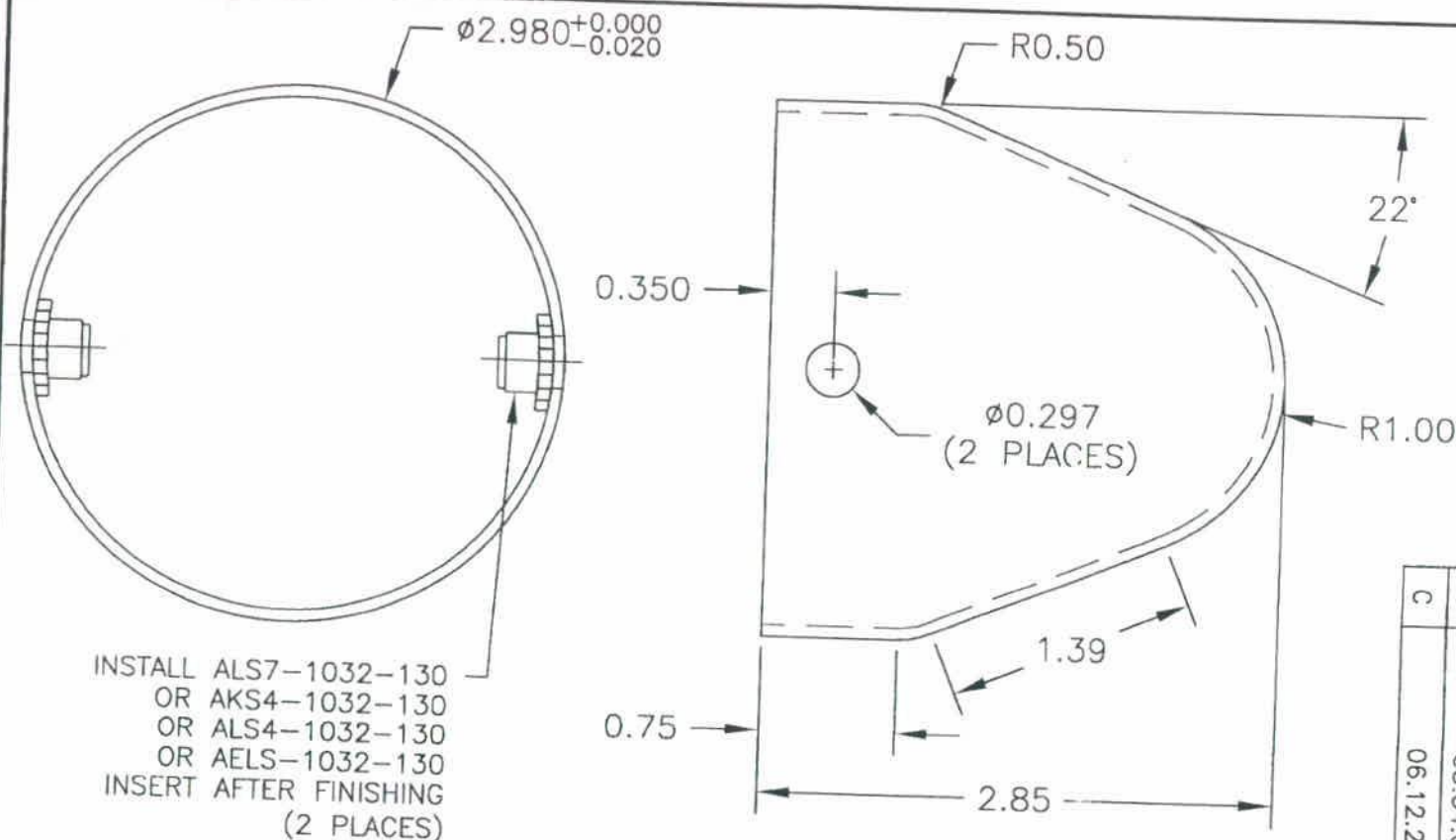
Aft Cap

**

01/01/26 (50)

DART

DESIGN	DS	DRAWN BY	PH	DART AEROSPACE USA, INC.
CHECKED	<i>[Signature]</i>	APPROVED	<i>[Signature]</i>	PORT HADLOCK, WA
DATE	06.12.20	DRAWING NO.	D2646	REV. C
		TITLE	AFT CAP	SHEET 1 OF 1
A			NEW ISSUE	SCALE 1:1
B			CHANGE TO CLOSED INSERTS	
C			CHANGE TO OPEN ENDED INSERTS	

**D2646 AFT CAP**

- 1) MATERIAL: ALUMINUM 1100-0 0.063 THICK (QQ-A-250/1)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

RELEASED
07.02.12

78018 HCS
1112/20



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO15753

Purchase Order Date 12/29/2011

PO Print Date 12/29/2011

Page Number 1 of 1

Order From :

VC-SIE001

SIEG'S MANUFACTURING LTD.
6236 - 205 STREET
LANGLEY, BC V2Y 1N7
CA

Contact Name

Vendor Phone

Vendor Fax

Vendor Account Nbr

604 530 7455

604 530 7490

Buyer

Requisition Nbr

Tax Resale Nbr

Terms

Currency

FOB

Brigitte Golden

10127-2607

Net 30

CAD

Destination-Collect

Ship To :

DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Line Nbr	Reference Revision ID Vendor Part Number	Description Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	D2646P	Air Cap	1/6/2012 Yes	50.00 Each	FedEx Overnight	\$6.4700	\$323.50

Special Inst: As per DWG D2646 Rev.C
B78018

PO Total:

\$323.50

Change Nbr: 1

Change Date: 12/29/2011

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required when applicable



Sieg's Manufacturing Ltd. Packing Slip

Metal Spinning & Metal Fabricating

6236 205 Street

Langley, BC, Canada V2Y 1N7

Phone: (604) 530 7455 Fax: (604) 530-7490

Check out our website: www.siegsinfg.com

Packing Slip No.:

40285

Date:

01/23/2012

Page

1

Sold to:		Ship to:	
DART AEROSPACE LTD. 1270 ABERDEEN STREET HAWKESBURY, ONTARIO K6A 1K7		DART AEROSPACE LTD. 1270 ABERDEEN STREET HAWKESBURY, ONTARIO K6A 1K7	
Order No.:	15753	Sold By:	KAULBARS, ARLA
Shipped By:	Fed Ex	Ship Date:	01/23/2012
Tracking No.:			

Item No.	Unit	Description	Quantity
D2646P	Each	Aft Cap	50
Comment:			



Sieg's Manufacturing Ltd.

Metal Spinning and Fabricating

6236 - 205 STREET, LANGLEY, B.C. V2Y 1N7
TELEPHONE: (604) 530-7455 • FAX: (604) 530-7490

INSPECTION REPORT

Date: Feb 23 2000

Customer: David H. Hargrave

Packing Slip: _____

Part#:	Quantity	Material	Check holes	Debur edges	Insp. By.
<u>282-01</u>	<u>50</u>	<u>6061</u>	<u>✓</u>	<u>✓</u>	<u>K</u>

Notes:

Material Certification Attached: ✓

PRECISION COIL, INC.

7/10/2007

Post Office Box 2650
U.S. 50 West
Clarksburg, WV 26302
(304) 622-1984
(304) 622-2301

CS 1775

CERTIFIED INSPECTION REPORT

Report No. 31657

Test Date 7/10/2007

Lot # / Heat # / S/O # 76086

Customer Name COPPER & BRASS SALES

Customer PO # CS1775

Test Specification AMSQQA250/1A &
ASTMB209-06

Alloy 1100
Temper O
Gauge (in) .063

Width (in) 48

Length (in) 144.000

Net Weight (lbs) 10,522# 'S

2/10/06

Test No	Spec ID	YLD (psi)	UTS (psi)	ELONG in 2" (%)
38480	1100-O	5,714	13,038	33.00

ALLOY	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	OTHER		
									EACH	TOTAL	
1100	Si+Fe	= 95	.05-20	.05	---	---	.10	---	.05	.15	
ACTUALS											
	.12	.60	.10	---	---	---	.01	---	.05	.15	REMAINDER

THIS REPORT INDICATES THE CHEMICAL ANALYSIS RANGE TO WHICH THE ITEMS LISTED WERE MANUFACTURED
BASED ON CERTIFICATE OF COMPLIANCE FURNISHED TO US BY THE PRODUCER. WE CERTIFY THEM TO BE
WITHIN THE LIMITS SHOWN. FOR ALLOY 1350 ONLY A MINIMUM ELECTRICAL CONDUCTIVITY OF 62% IACS
AT 20 DEGREES CELSIUS IS GUARANTEED

By UIC. umf Date 7/13/07

COPPER AND BRASS SALES

MATERIAL TYPE ALUMINUM ALLOYS

PRODUCT DESIGNATION

1100 1350 3003 3004 3105 5005 5083 5086 5182 5454 6061 6063

"W⁴ARNING"

SMALL CHIPS, FINE TURNINGS AND DUST MAY IGNITE READILY. EXPLOSION POTENTIAL MAY BE PRESENT WHEN DUST OR FINES ARE DISPERSED IN THE AIR. FINE DUST OR MOLTEN ALUMINUM ARE IN CONTACT WITH CERTAIN METAL OXIDES. OR, CHIPS, FINES, DUST OR MOLTEN ALUMINUM ARE IN CONTACT WITH WATER OR MOISTURE. KEEP AWAY FROM IGNITION SOURCE. USE EXPLOSION-PROOF VENTILATION. KEEP MATERIAL DRY.

INHALING LARGE AMOUNTS OF COPPER, MAGNESIUM OXIDE, MANGANESE OXIDE, AND ZINC OXIDE FUMES OR DUST MAY CAUSE METAL FUME FEVER WITH FLU-LIKE SYMPTOMS. CHRONIC OVEREXPOSURE TO COPPER MAY CAUSE THICKENING OF THE SKIN; AND SKIN, TEETH, AND HAIR DISCOLORATION. CHRONIC OVEREXPOSURE TO MANGANESE DUST CAN CAUSE CENTRAL NERVOUS SYSTEM DAMAGE, SCARRING OF THE LUNGS AND REPRODUCTIVE HARM IN MALES. TARGET ORGAN IS PRIMARILY THE LUNG, BUT REPEATED HIGH EXPOSURE CAN ALSO AFFECT THE LIVER. CHRONIC OVEREXPOSURE TO TIN DUST OR IRON OXIDE DUST/FUME MAY CAUSE LUNG SIDEROSIS. CHRONIC OVEREXPOSURE TO SILICON DUST CAN CAUSE CHRONIC BRONCHITIS.

THIS PRODUCT ALSO CONTAINS LEAD AND CHROMIUM COMPOUNDS. LEAD IS KNOWN TO CAUSE REPRODUCTIVE TOXICITY AND IS A KNOWN CARCINOGEN. EXPOSURE TO CHROMIUM DUST OR FUME MAY CAUSE METAL FUME FEVER WITH FLU-LIKE SYMPTOMS AND KIDNEY AND LIVER DAMAGE. UNDER HIGH TEMPERATURES, HEXAVALENT CHROMIUM MAY BE PRODUCED. IF IN THE INSOLUBLE FORM, IT IS A CONFIRMED HUMAN CARCINOGEN. (CALIFORNIA PROPOSITION 65)

IF COATED WITH OIL, MAY CAUSE SKIN IRRITATION/DERMATITIS BY CONTACT. WELDING FUME IS LISTED AS A POSSIBLE CARCINOGENIC TO HUMANS.

READ THE ALUMINUM ALUMINUM ALLOYS MATERIAL SAFETY DATA SHEET(MSDS) ON FILE WITH YOUR EMPLOYER BEFORE WORKING WITH THIS MATERIAL.

- * If processing or recycling produces particulate, use exhaust ventilation or other controls designed to prevent exposure to workers. Examples of such activities include melting, welding, grinding, abrasive sawing, sanding and polishing. Any activity which abrades the surface of this material can generate airborne particulate. Use respiratory protection (P100, quantitative fit testing required) if exposures exceed the permissible limits.
- * The Occupational Safety and Health Administration (OSHA) have set mandatory limits on occupational exposures.
- * Aluminum, in solid form and as contained in finished products presents no special health risk.
- * Sold for manufacturing purposes only. This product can be recycled; contact your sales representative.

The Occupational Safety and Health Administration require employers to provide training in the proper use of this product.

For additional information, call or write to Copper and Brass Sales, 22355 West Eleven Mile Road, Southfield, MI 48033, telephone 248-233-5600, or visit our web site @ www.copperandbrass.com.